

STORAGE

FAQ

Q How can I make my Mac OS, Windows 98 and Me computers recognise my NTFS hard disk?

A Versions of Windows older than NT and 2000 aren't compatible with NTFS and Microsoft has no plans to add such support. If you just need to copy files off an NTFS hard disk, you can do this using free third-party utilities such as NTFS Reader (www.diskinternals.com/products/ntfs-reader).

If you need to write files to an NTFS hard disk, you'll need to pay for a utility such as Paragon's NTFS for Windows 98 (www.mount-everything.com/home/ntfsw/index.htm).

Although Mac OS X computers can read and write FAT32 disks, they can't write to NTFS disks, only read them. As a workaround, you can share Mac HFS+ formatted disks with Windows PCs using a utility such as Mediafour's MacDrive (www.mediafour.com/products/macdrive6).

Alan Lu
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FORMAC Disk Mini 120GB

★★★★★
£108 inc VAT



WESTERN DIGITAL Passport 120GB

★★★★★
£93 inc VAT



The latest portable USB hard disks from Formac and Western Digital look very similar. They both have a capacity of 120GB and come in attractive, shiny black cases. But they have subtly different strengths and weaknesses. Formac's Disk Mini is also available in glossy white. Its curvy case is a little bulkier than Western Digital's Passport but it has a FireWire 400 port in addition to USB. The included USB cable has two plugs to ensure it receives enough power. Unlike the Passport, there is no bundled software.

We were impressed with the Disk Mini's performance when connected using either USB or FireWire. It's one of the fastest external portable hard disks we've reviewed. As expected, it was a little quicker

over FireWire than it was over USB. We've seen Western Digital's Passport before, but this 120GB model is slimmer. There's no FireWire port, but the underside is coated in rubber so it's less likely to skid across your desk, which can be a problem with the Disk Mini. The lone USB port is protected by a rubber flap when not in use, whereas the ports on the Disk Mini are left exposed.

Western Digital has included its own synchronisation software. It can't schedule backups, but if you make changes to the files stored on the Passport, these are automatically reflected on the originals. The software also stores copies of your Outlook email messages and web browser bookmarks, which can be accessed on any PC to which the Passport is connected.

The Passport couldn't keep up with the Disk Mini in our large files tests and it was noticeably behind when reading and writing small files. However, it's fast enough for everyday use. If you copy lots of files while on the move, the Disk Mini's extra burst of speed and the flexibility provided by its FireWire port make it a good choice. If speed isn't your main concern, the Passport is £15 cheaper.

If you have less than £100 to spend on a portable external hard disk, choose the Passport. For £40 more, Seagate's 160GB Portable External Hard Drive, featured in our 'Also consider...' below, has a larger 160GB capacity and is slightly better value.

Alan Lu

FORMAC SUMMARY

- ✓ USB and FireWire 400 ports
- ✓ Fast read and write performance
- ✗ Higher cost per GB than the Passport

PORTABLE HARD DISK 120GB capacity, 111GB formatted capacity, USB Hi-Speed, FireWire 400, bus powered
PART CODE FAUR20120-0
SUPPLIER www.laptopsdirect.co.uk
DETAILS www.formac.co.uk

PERFORMANCE (see page 56)	
Large files	28.4MB/s
Small files	9.4MB/s
	-50% Reference +50% +100%

WESTERN DIGITAL SUMMARY

- ✓ Low cost per gigabyte
- ✓ Rubber bottom prevents slippage
- ✗ Not quite as fast as the Disk Mini

PORTABLE HARD DISK 120GB capacity, 111GB formatted capacity, USB Hi-Speed, bus powered
PART CODE WDXMS1200
SUPPLIER www.misco.co.uk
DETAILS www.westerndigital.com

PERFORMANCE (see page 56)	
Large files	23.7MB/s
Small files	7.8MB/s
	-50% Reference +50% +100%

SEAGATE 160GB Portable External Hard Drive

★★★★★
£133 inc VAT

BEST BUY Seagate's 160GB Portable External Hard Drive performed well in all our file-transfer tests and is one of the fastest USB portable hard disks we've seen. The BounceBack Express software backs up files according to your schedule, so there's no excuse for not protecting data.

Seagate provides two USB plugs, so it can get enough power without requiring an external supply. At 83p per gigabyte, Seagate's pocket-sized disk is fast and great value.



PORTABLE HARD DISK 160GB capacity, USB Hi-Speed, USB powered PART CODE ST9160821U2-RK SUPPLIER www.more-computers.co.uk DETAILS www.seagate.com Consistently fast; low cost per gigabyte Chunky case FULL REVIEW Sep 2006

BUFFALO LinkStation Pro 250GB

★★★★★
£137 inc VAT

PRICE CUT!

BEST BUY Buffalo's LinkStation Pro 250GB network attached storage is impressive. When

copying large files, it's almost as quick as a USB hard disk. Backups from your PC are made to the LinkStation using the bundled MEMEO software. You can back up the LinkStation to a USB hard disk, but you do have to format it first. It's great value and easy to set up.



NETWORK ATTACHED STORAGE 250GB hard disk, 10/100/1,000Mbit/s network connection, two USB2 ports PART CODE LS-250GL SUPPLIER www.misco.co.uk DETAILS www.buffalo-technology.com Low cost per gigabyte Must reformat USB backup disks FULL REVIEW Nov 2006

SAMSUNG SpinPoint T133 HD401LJ

★★★★★

£102 inc VAT



Buying a big hard disk doesn't have to be poor value, as Samsung's SpinPoint T133 HD401LJ proves. Costing just 27p per gigabyte, it's excellent value, while its 400GB capacity should be enough space for all your MP3s, videos and pictures.

Its performance is brilliant, too. It blitzed through most of our file-transfer tests. It's one of the fastest SATA disks we've seen when reading and writing large files, and reading small files. It struggled a little when writing small files, though, and was slower than we expected. It's fast enough for most everyday purposes, but the sluggish small files performance is surprising as previous Samsung internal hard disks excelled in this area.

Even so, the SpinPoint is remarkable value and otherwise its performance is faultless. If you want to expand your PC's storage capacity, this is a great hard disk for the job.

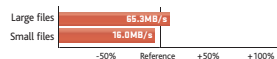
Alan Lu

SUMMARY

- ✓ Great large files performance
- ✓ Low cost per gigabyte
- ✗ Not as quick at writing small files

HARD DISK 3½" internal hard disk, 400GB capacity, 372GB formatted capacity (NTFS), SATA 300 interface, 7,200rpm spindle speed, 16MB cache
PART CODE HD401LJ
SUPPLIER www.scan.co.uk
DETAILS www.samsung.com

PERFORMANCE (see page 56)



HITACHI Travelstar 5K160 160GB

★★★★★

£101 inc VAT



Notebook hard disks usually have less capacity than their desktop counterparts, but Hitachi's Travelstar 5K160 160GB hard disk shows they're catching up. Unlike many 2½" models we've seen, the 5K160 uses a SATA rather than PATA interface. For help fitting a notebook disk, refer to *Upgrade Workshop*, *Shopper* April 2006.

This hard disk has a spindle speed of 5,400rpm, while the fastest notebook drives have spindle speeds of 7,200rpm. This didn't make much difference in our tests. The 5K160 was quicker than our test notebook's 5,400rpm Seagate 120GB hard disk and it wasn't far off Hitachi's top-of-the-range 7,200rpm Travelstar 7K100 100GB disk. It should be fast enough for any task.

Unfortunately, the disk shaved almost 20 minutes from our test notebook's battery life. Still, at just 66p per gigabyte, it's great value.

Alan Lu

SUMMARY

- ✓ Large capacity
- ✓ Fast file transfer speeds
- ✗ Reduced our notebook's battery life

NOTEBOOK HARD DISK 2½" internal hard disk, 160GB capacity, 153GB formatted capacity (NTFS), SATA interface, 5,400rpm spindle speed
PART CODE HTS541616J9SA00
SUPPLIER www.lambdata-tek.com
DETAILS www.hitachigst.com

PERFORMANCE (see page 56)



CHOOSING AN... External Hard Disk

Follow the steps to find your ideal specs

SIZE: Desktop

CAPACITY: 160GB

SPINDLE SPEED: 7,200rpm

INTERFACE: USB Hi-Speed

Recommended minimum in grey

1 A basic external hard disk that's good enough for simple backups and designed to sit on your desktop with the specifications as shown above will cost around £60.

2 If you need more capacity, it's best to buy the largest hard disk you can afford. If you're using your external hard disk to back up your internal disk, the general rule is to buy an external disk with twice the capacity of your internal disk so you have enough room for other files.

3 If you need to transport lots of files, you will need a portable hard disk. Drives using a 2½" hard disk (called portable drives) are the best value and are available in capacities up to 160GB. They're small enough to slip into a coat pocket or a bag. However, these drives are more expensive per gigabyte than their desktop equivalents.

If size is really important, you need a pocket drive. An external hard disk that uses a 1.8" hard disk (iPod sized) is a good bet. These drives have a maximum capacity of 80GB.

4 Performance can be a big issue with portable drives. If you are writing a lot of data to and from a disk, choose one with a high spin speed, as you'll get better throughputs. Most pocket-sized hard disks have a spindle speed of 3,600rpm, while most portable hard disks have a spindle speed of 4,200rpm or 5,400rpm. Desktop hard disks tend to have a spindle speed of 7,200rpm although 5,400rpm models are also available.

5 USB Hi-Speed is the most common interface found on external hard disks and is also backwards-compatible with the slower USB 1.1. This is fast enough for most uses, but if you deal with very large files on a regular basis, such as DV movies, then a FireWire 400 hard disk will be quicker. FireWire 800 is even zippier, but few hard disks and even fewer PCs have FireWire 800 ports. Even faster still are eSATA hard disks, but these are even more expensive and hard to find than FireWire 800 disks.

WESTERN DIGITAL 500GB My Book Pro Edition

★★★★★

£192 inc VAT



PRICE CUT!



The 500GB My Book Pro has FireWire 400 and 800 ports in addition to USB2. When connected using USB, it managed a throughput of 24.11MB/s. Using FireWire 800, it was twice as fast and one of the quickest external disks we've seen.

It is great value at 41p per gigabyte, which is only a few pence more per gigabyte than most 160GB and 250GB external disks.

EXTERNAL HARD DISK 500GB capacity, 465GB formatted capacity (NTFS), USB Hi-Speed, FireWire 400 and 800 interfaces
PART CODE WDG1T5000 SUPPLIER www.savastore.com
DETAILS www.westerndigital.com Excellent value; FireWire and USB; fast performance FULL REVIEW Jan 2007

HITACHI Deskstar T7K250 HDT722525DLAT80

★★★★★

£54 inc VAT



With a low cost of just 23p per gigabyte, Hitachi's Deskstar T7K250 HDT722525DLAT80 is remarkable value.

It did well in our file-transfer tests, performing particularly quickly in our large files test. Its large capacity should provide enough space for most of your files, but you can always buy two and use RAID for more capacity. This PATA hard disk is excellent value and its performance is reliably quick.



EXTERNAL HARD DISK 250GB hard disk, 232GB formatted capacity (NTFS), PATA interface, 7,200rpm spindle speed, 8MB cache
PART CODE HDT722525DLAT80 SUPPLIER www.eclipsecomputers.com DETAILS www.hitachigst.com Consistently fast performance; low cost per gigabyte FULL REVIEW Jul 2006